$$I(J^{P}) = \frac{1}{2}(\frac{1}{2}^{+})$$
 Status: ***

The $\Xi_c^{\prime+}$ and $\Xi_c^{\prime0}$ presumably complete the SU(3) sextet whose other members are the Σ_c^{++} , Σ_c^+ , Σ_c^0 , and Ω_c^0 : see Fig. 3 in the note on Charmed Baryons. The quantum numbers given above come from this presumption but have not been measured.

$\Xi_c^{\prime+}$ MASS

The mass is obtained from the mass-difference measurement that follows.

VALUE (MeV)

DOCUMENT ID

2578.4±0.5 OUR FIT

$\Xi_c^{\prime+} - \Xi_c^+$ MASS DIFFERENCE

VALUE (MeV) DOCUMENT ID TECN COMMENT

110.5 ± 0.4 OUR FIT

16 BELL e^+e^- , Υ regions $110.5 \pm 0.1 \pm 0.4$ 7055 YELTON

• • We do not use the following data for averages, fits, limits, etc. •

 $107.8 \pm 1.7 \pm 2.5$

JESSOP

99 CLE2 $e^+e^-\approx \Upsilon(4S)$

$\Xi_c^{\prime+}$ - $\Xi_c^{\prime0}$ MASS DIFFERENCE

VALUE (MeV) DOCUMENT ID TECN COMMENT

 -0.8 ± 0.6 OUR FIT

• • We do not use the following data for averages, fits, limits, etc.

 $-0.8\pm0.1\pm0.5$

YELTON

16 BELL 7055 and 11,560 evts

Created: 5/22/2019 10:05

$\Xi_c^{\prime+}$ DECAY MODES

The $\Xi_c^{\prime+} - \Xi_c^+$ mass difference is too small for any strong decay to occur.

Fraction (Γ_i/Γ) Mode $\Xi_c^+ \gamma$ seen

='+ REFERENCES

YELTON PR D94 052011 J. Yelton et al. (BELLE Collab.) 16 (CLEO Collab.) **JESSOP** PRL 82 492 C.P. Jessop et al.